

AMENDMENTS TO THE DRAWINGS

Applicants submit herewith in an attachment four sheets of replacement drawings for Figures 1-4 of the present Application. No new matter has been added.

Attachment: Replacement Sheets for Figures 1-4

REMARKS

Claims 1-47, 49, and 53-61 are pending in the instant application. Claims 62-69 have been withdrawn.

Drawings

The Examiner requires corrected drawings in compliance with 37 CFR 1.121(d). Corrected drawings are submitted herewith.

112 Rejections

Claims 38, 53 and 56 are rejected under 35 U.S.C. § 112 as failing to comply with the written description requirement. Amendments to Claims 38, 53 and 56 obviate the rejections of these Claims under 35 U.S.C. § 112. Accordingly, Applicants respectfully submit that the rejection of Claims 38, 53 and 56 should be withdrawn.

103 Rejections

Claims 1-19, 31-32, 38-44, 47, 53, 54, 55, 56 and 58-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Jacobs (U.S. Patent 6,006,285). The Applicants have reviewed the cited references and respectfully submit that embodiments of the present invention as are set forth in Claims 1-19, 31-32, 38-44, 47, 53, 54, 55, 56 and 58-61 are neither anticipated nor rendered obvious by Birrell in view of Jacobs.

The Examiner is directed to independent Claims 1, 7, 2-5, 8, 9, 10, 18, 19, 20, 38, 53-56, 58 and 60 drawn to claimed embodiments of the invention. Arguments made in support of the patentability of these Claims are presented below. The text of independent Claims 1, 7, 8 and 20 are presented in part below for convenience of the Examiner.

Independent Claim 1

The Examiner is respectfully directed to independent Claim 1 which is drawn to a computer system adapted to play audio files that comprises:

...a system CPU; memory; at least one drive comprising compressed audio data, said compressed audio data residing in one or more audio files; a play list software program for selecting and storing a play list comprising one or more of said audio files; a first operating system adapted to control at least said system CPU and said memory; and a second operating system, said second operating system being stored in BIOS and adapted to retrieve said play list and cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress the compressed audio data of said file and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Applicants respectfully note that the Birrell et al. and Jacobs et al. reference taken alone or in combination do not teach or suggest a computer system adapted to play audio files that includes a second operating system that causes a system CPU to decompress compressed audio data, as claimed in independent Claim 1 of the present invention.

In particular, the Examiner argues:

The Birrell reference does not disclose a second operation system as alleged by Applicants. However, since the rejection is not based upon the Birrell reference alone, but an obvious combination of Birrell in view of Jacobs. In the combination of references, the Jacobs references teaches the second operation system stored in BIOS of a computer system as will be shown further below.

The Examiner further argues:

Examiner respectfully disagrees. Applicants is correct in alleging that the operating system is not loaded in Jacob in the audio CD mode. However, this is the main operating system. As shown in the previous rejection, Jacobs discloses a second operating mode, which is executed by code stored in the BIOS. This stored program code application allows the computer to play the audio CDs without booting. See Jacobs col. 1 lines 64-67 and col. 2 lines 1-5. Thus, since this program controls the operation of the CD drive for playback of the system, it can be generally considered an operating system. Thus, while the main operating system is not loaded, this secondary one is. Contrary to Applicants' allegations, this is not in direct contrast with the claimed invention of the present Application.

Applicants respectfully disagree with those arguments. Applicants respectfully submit that the Jacob reference does not disclose that the second operating mode is executed

by code stored in the BIOS. After reviewing the Jacob reference, Applicants cannot locate a second operating mode executed by code in the disclosed BIOS. Referring to Col. 1, lines 64-67, and Col. 2, lines 1-5, which are extracted by the Examiner, it is disclosed that activating a non-volatile memory region storing system BIOS code is for loading a first operating system but not for loading a second operating mode. Furthermore, the second operating system in the claimed invention is not only stored in BIOS, but also is adapted to cause the system CPU to decompress the compressed audio data. The audio CD mode in the Jacob reference does not activate the system CPU, and the audio file is played by an embedded CD-ROM drive application. Therefore, the references does not disclose or suggest all the limitations of the claimed invention, and the obviousness rejection of Claim 1 should be withdrawn.

In the rejection, the Examiner admits that Birrell does not discloses a second operating system being stored in BIOS and adapted to retrieve the play list and cause a drive to read the audio file, to cause the system CPU to decompress the compressed audio data of the file and provide decompressed audio data, and to cause the decompressed audio data to be stored in the memory. However, the Examiner argues that Jacobs discloses a second operating system being stored in BIOS, i.e. a second operating mode.

Applicants understand that Jacobs discloses a computer system which can be run in two modes, one is a normal mode and the other is an audio CD mode. Examiner argues that the audio CD mode discloses the second operating system of the present invention. Applicants respectfully disagree with those arguments. As expressly disclosed in the Jacobs reference, the audio CD mode operates independently of an operating system. Further, in the audio CD mode, an embedded CD-ROM device application is used to drive and play the CD in the CD-ROM, and the system CPU is not activated. Therefore, the audio CD mode in the Jacobs reference is distinct different from the second operating system.

Additionally, Applicants wish to direct the Examiner's attention to the Jacobs et al. reference. The passage cited by the Examiner is reproduced below:

“an audio CD mode switch can activate either a non-volatile memory region which stores system BIOS code for loading an operating system and a CD-ROM drive application associated with the operating system for audio playback or non-volatile memory region storing an embedded CD-ROM drive application for audio playback,”

it should be understood that Jacobs et al. does not anticipate or render obvious a second operating system that causes the system CPU to decompress the compressed audio data of said file and provide decompressed audio data.

Additionally, the Examiner argues that one would have been motivated to modify Jacobs so as to avoid the lengthy duration of the booting process for an operating system. Applicants would like to direct the Examiner's attention to the fact that the Birrell reference only discloses a portable audio device, such as a MP3 player, which is not actually a computer system. Applicants disagree that one would have been motivated to combine a portable audio device with a second operating system to avoid the lengthy duration of the booting process. It is not believed that the portable audio device, which may be like an MP3 player, needs to incorporate a second operating system. Applicants understand that the portable audio device may have some of the functionality of a computer system, but respectfully submits that it is not equivalent to a fully functioning computer. Therefore, applicants respectfully submit that neither the references themselves nor the knowledge generally available to one of ordinary skill in the art is there any suggestion to modify the reference or to combine the reference teachings. As such, the 103 rejections do not meet the basic criteria set forth in the MPEP, Section 2143, and should be withdrawn.

Further, Applicants respectfully submit that, portable audio player 100 in the Birrell reference does not disclose all the limitations of the computer system set forth in Claim 1. Applicants respectfully disagree with the Examiner that the portable audio player 100 in the Birrell et al. reference comprises the play list software program and the first operating system

adapted to control the CPU and memory, retrieve the play list, cause the drive to read the file and the CPU to decompress the audio data. Birrell et al. discloses a table for playing the audio files, but does not disclose any play list software program for selecting and storing a play list. The Birrell et al. reference does not disclose that the control program in the Birrell et al. reference is adapted to control the CPU and memory, retrieve the play list, cause the drive to read the file and the CPU to decompress the audio data, as is recited in independent Claim 1 of the present invention.

In addition, Applicants respectively submit that the portable audio player 100 in the Birrell reference is not programmable. The portable audio player 100 may only execute routine processes, and may not be programmable. The portable audio player 100, therefore, cannot be seen as a computer system.

Consequently, the embodiments of the Applicants' invention as are set forth in Claim 41 are neither anticipated nor rendered obvious by Birrell et al. reference either taken alone or in combination with the Jacobs et al. reference, and as such are in a condition for allowance.

Independent Claim 7

Applicants respectfully submit that Claim 7 includes the similar limitations, i.e., an operating system stored in BIOS that is adapted to cause the system CPU to decompress the compressed audio data, which Birrell et al. and Jacobs et al. do not anticipate or render obvious.

Applicants respectfully submit Claim 7 is patentable over the reference as applied not only for the reason advanced with respect to Claims 1, but also on their own merits.

Applicants respectfully point out that independent Claim 7 recites, in part:

a play list software program executable under said first operating system, said play list software program being adapted to permit selection and storage of a play list comprising one or more of said audio files; and

a second operating system, said second operating system being stored in BIOS and adapted to retrieve said play list and cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress the compressed audio data of said file and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory.
(Emphasis Added)

In particular, The Examiner further argues:

Examiner respectfully disagrees. In addition to what is stated above, these arguments are not persuasive. The combination of Birrell in view of Jacob's does in fact disclose a computer system having a play list software program executable under the first operating system to generate a play list. Birrell discloses various control programs (i.e. a first operating system) for controlling his system (what can generally be considered a computer in its broadest sense). Birrell also discloses storing a table of contents and play state information in RAM. The control programs can generally be defined as a first operating system, as is shown in the previous rejection. The play list, as disclosed by Birrell, permits selection and storage of a play list comprising one or more of said audio files. Birrell even states that the play list is a list of audio tracks to be played (col. 3 lines 49-50). Thus, at this point it is shown that Birrell discloses a play list software program (element 190; col. 3 lines 49-50), said play list software program being adapted to permit selection and storage of a play list comprising one or more of said audio files (i.e. storing a table of contents and play state information in RAM; the play state includes a play list which is a list of audio tracks to be played; col. 3 lines 39-50). Further, this play list is executed using one of the control program listed in col. 5 of Birrell, thus reading on upon the limitation in question of a play list software program executable under said first operating system. As such, the argument is not persuasive and the rejection stands.

Applicants respectfully disagree with those arguments. In the claimed invention, the play list software program is executable under the first operating system and the second operating system is adapted to retrieve the play list and cause the drive to read the audio file. In other words, the play list is stored under the first operating system and is used under the second operating system. The Examiner only contends that the Birrell reference may disclose the play list, but the Jacobs reference does not disclose any play list which is similar to the play list of the claimed invention. As such, neither Jacobs nor Birrell discloses that the play list is created under the first operation system for playing the audio file under the second operating system. Consequently, Claim 7 overcome the rejection under 35 U.S.C. 103(a).

Independent Claims 2-5, 9 and 10

Applicants respectfully submit that Claims 2-6, 10-17 and 19 include limitations similar to those contained in Claim 7, i.e., an operating system stored in BIOS and adapted to cause the system CPU to decompress the compressed audio data, which as discussed above Birrell et al. and Jacobs et al. do not anticipate or render obvious. Consequently, these Claims overcome the rejection under 35 U.S.C. 103(a).

Independent Claims 8

Applicants respectfully submit that Claim 8 contains limitations similar to those contained in Claim 1, i.e., an operating system stored in BIOS and adapted to play the audio file, which Birrell et al. and Jacobs et al. do not anticipate or render obvious.

Applicants respectfully submit Claim 8 is patentable over the reference as applied not only for the reason advanced with respect to Claims 1, but also on their own specific merits. Applicants respectfully point out that independent Claim 8 recites, in part:

a play list software program executable under said first operating system, said play list software program being adapted to permit selection and storage of a play list comprising one or more of said audio files; and
(Emphasis Added)

Nowhere in the Jacobs's reference or in the Birrell's reference is a computer system having a play list software program executable under the first operating system to generate a play list, which is retrieved by the second operating system taught or suggested. The second operating system will play the audio file according to the play list. Neither Jacobs nor Birrell discloses a play list created under a first operation system for playing an audio file under the second operating system. Consequently, Claim 8 overcomes the rejection under 35 U.S.C. 103(a).

Independent Claims 18 and 19

Applicants respectfully submit that Claims 18 and 19 contain limitations similar to those contained in Claim 1, i.e., an operating system stored in BIOS and adapted to play the audio file, which Birrell et al. and Jacobs et al. do not anticipate or render obvious. Nowhere in the Jacobs or in Birrell et al. references is a computer system having an operating system stored in BIOS and a switch to cause the operating system to boot taught or suggested. The operating system then controls the audio controller to play the audio file. Neither Jacobs nor Birrell et al. discloses the switch to cause the operating system to boot such that the operating system controls the audio controller to play the audio file. Consequently, Claims 18 and 19 overcome the rejection under 35 U.S.C. 103(a).

Independent Claim 20

The Examiner is respectfully directed to independent Claim 20 which sets forth that an embodiment of the present invention includes a computer system adapted to play audio files that comprise:

...a system CPU; memory; at least one drive comprising compressed audio data; and an audio controller coupled to said system CPU, memory and drive; said audio controller operating independently of said operating system, being adapted to cause said drive to read said compressed audio data, to cause said system CPU to decompress said compressed audio data, thereby providing decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Applicants respectfully submit that Birrell et al. does not disclose an audio controller adapted to cause the drive to read the compressed audio data or a CPU to decompress the compressed audio data and adapted to be operated independently of an operating system. Consequently, the embodiments of the Applicants' invention as are set forth in Claim 20 are neither anticipated nor rendered obvious by Birrell et al.

Furthermore, Applicants hereby traverse the finding by the Examiner as a part of taking “official notice” that it would have been obvious to store the decompressed data prior to the A/D conversion. As the Examiner contends the Birrell et al. reference discloses storing the decompressed data in memory. Applicants respectfully assert that the taking of “official notice” is inappropriate since the Birrell et al. reference does not teach or suggest the use of a second operating system for accessing compressed data, and decompressing the data. Applicants hereby respectfully request that the Examiner produce authority for taking the “official notice.”

Applicants also respectfully submit that Birrell et al. does not anticipate or render obvious the present claimed invention as is recited in Claims 31-32 which depend from Claim 20. Consequently, these Claims overcome the rejection under 35 U.S.C. 103(a) as being dependent on an allowable base claim.

Independent Claims 38, 53, 54, 55, 56, 58 and 60

Applicants respectfully submit that Claims 38, 53, 54, 55, 56, 58 and 60 contain limitations similar to those contained in Claim 1. Consequently, these Claims likewise overcome the rejection under 35 U.S.C. 103(a).

Therefore, Applicants respectfully submit that Birrell in view of Jacobs does not provide an adequate basis for rejection of independent Claims 1-19, 20 (not rejected under this section), 38, 53, 54, 55, 56, 58 and 60 under 35 U.S.C. §103 and, as such, Claims 1-19, 20, 38, 53, 54, 55, 56, 58 and 60 are allowable. Accordingly, the Applicants respectfully submit that Claims 31-32 dependent on Claim 20, Claims 39-44 and 47 dependent on Claim 38 and Claim 59 dependent on Claim 58 are likewise allowable as being dependent on allowable base claims.

Claims 20-28, 34-37 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175).

Independent Claim 20

The Examiner is respectfully directed to independent Claim 20 which sets forth that an embodiment of the present invention includes a computer system adapted to play audio files, that comprises:

...a system CPU; memory; at least one drive comprising compressed audio data; and an audio controller coupled to said system CPU, memory and drive; said audio controller operating independently of said operating system, being adapted to cause said drive to read said compressed audio data, to cause said system CPU to decompress said compressed audio data, thereby providing decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Applicants respectfully submit that Birrell et al. does not disclose an audio controller adapted to cause the drive to read the compressed audio data or a CPU to decompress the compressed audio data and adapted to be operated independently of an operating system. Consequently, the embodiments of the Applicants' invention as are set forth in Claim 20 are neither anticipated nor rendered obvious by Birrell et al.

Furthermore, Applicants hereby objects to the finding by the Examiner as a part of taking "official notice" that it would have been obvious to store the decompressed data prior to the A/D conversion. As the Examiner contends the Birrell et al. reference discloses storing the decompressed data in memory. Applicants respectfully assert that the taking of "official notice" is inappropriate since the Birrell et al. reference does not teach or suggest the use of a second operating system for accessing compressed data, and decompressing the data. Applicants hereby respectfully request that the Examiner produce authority for taking the "official notice."

Applicants also respectfully submit that Birrell et al. do not anticipate or render obvious the present claimed invention as is recited in Claims 21-28 which depend from Claim 20. Consequently, these Claims overcome the rejection under 35 U.S.C. 103(a) as being dependent on an allowable base claim.

Independent Claims 37 and 57

Applicants respectfully submit that Claims 37 and 57 include the similar limitations as claimed in Claim 20, i.e., an audio controller being adapted to cause the system CPU to decompress the compressed audio data, which Birrell et al. do not anticipate or render obvious. Consequently, these Claims overcome the rejection under 35 U.S.C. 103(a).

Therefore, Applicants respectfully submit that Birrell does not provide an adequate basis for rejection of Claim 20, 37 and 57 under 35 U.S.C. §103 and, as such, Claims 20, 37 and 57 are allowable. Accordingly, the Applicants respectfully submit that Claims 21-28 and 34-36 dependent on Claim 20 are likewise allowable as being dependent on an allowable base claim.

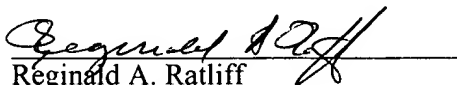
Conclusion

In light of the above-listed remarks, the Applicants respectfully request allowance of the remaining Claims.

The Examiner is urged to contact the Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
WAGNER, MURABITO & HAO LLP

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Reginald A. Ratliff
Reg. No.: 48,098
Two North Market Street
Third Floor
San Jose, CA 95113
(408) 938-9060